AUSTRALIAN FORESTS AND CLIMATE ALLIANCE
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Attention: Victorian Renewable Energy Team
Re: Victorian Renewable Energy Auction Scheme

Dear Sir or Madam,

This is the Australian Forests and Climate Alliance's submission to the Victorian Department of Environment, Land, Water and Planning's consultation process regarding the establishment of a renewable energy auction scheme proposed to assist the state of Victoria to achieve its renewable energy targets. Those targets are: to ensure that 25 per cent of the State's electricity generation comes from renewable sources by 2020, rising to 40 per cent of generation by 2025.

DELWP has also asked for stakeholder views on any 'other matters' considered relevant to evaluating policy design options and influencing the future direction of the scheme. We draw to your attention an 'other matter', a foundation principle which, if ignored, is likely to lead to a flawed renewable energy auction process and could compromise the state's transition to renewable energy and reduced carbon emissions. It could expose the Department and the government to an accusation of sham carbon accounting.

This matter is not the target itself, but an aspect of the definition of 'renewable energy' which appears to underpin the Victorian RET. The Department frames Victoria's proposed RET Auction in accordance with the Federal Government's Renewable Energy Target. There is no reference to a critical and fundamental flaw in the present federal government's definition of renewable energy, i.e. its inclusion of native forest biomass as an 'eligible' renewable energy source for the purpose of attracting subsidy, or large scale RECs. As there is an acceptance of this major flaw in DELWP's Auction proposal, we assume that the Department endorses subsidising the burning of native forests for electricity or heat generation.

We ask that the Department raise this fundamental issue with the Victorian government before proceeding to design an auction which might enshrine a flawed principle. It could prove to be extremely damaging and politically controversial otherwise. Not to mention counterproductive to the intent of the RETs. We would like the Victorian government to query – as the public are already doing - why the definition of renewable energy should include energy derived from burning, processing or otherwise utilising native forest biomass as an energy source.

We urge the Victorian government to address the definition of 'renewable' energy through a logical consideration of scientific evidence, instead, as the federal government has done, on the basis of blind acceptance of industry based assurances.

Intact native forests are one of the earth's most efficient land based carbon sink and storage facilities. Why would one promote, as a means of decreasing GHG emissions, policies or processes that would destroy an effective carbon sinking and storage facility?

Burning anything to create energy produces dangerous GHG emissions. Why would one promote burning forest materials so that an immediate pulse of GHG enters the atmosphere?[1]

Why would one even **consider** for subsidy an energy form (native forest biomass) that derives from a process known to be driving forest degradation (industrialised native forest logging), when forest degradation is now a dramatically rising source of global GHG emissions? (Recent FAO studies illustrate they have doubled between 2011 and 2015 from a decade earlier).[2]

AFCA considers that it is the responsibility of The Department to communicate these facts to the Victorian government and to recommend that it reject outright the current flawed definition of native forest biomass as an 'eligible' renewable energy source. We urge the government to review and redefine 'renewable energy' so that burning the state's largest land based carbon store is not part of the mix. **If this is not addressed the state government could find itself in a situation whereby it is (further) subsidising the increase of GHG emissions**

The Victorian government should prohibit native forest biomass derived energy sources from inclusion in its renewable energy auction process. Forests as carbon stores, water producers, biodiversity refuges are far more valuable to far more people in the long term than as an industry alternative to the now declining native forest logging industry. The Department should point out clearly that approval and/or promotion of any form of energy that involves the utilisation of native forest biomass, be it co-generation with coal or processing native forest biomass into another energy form, would undermine a transition to a real renewable energy outcome for the state.

We provide further argument/reasoning below to assist the Department to persuade the Victorian government to keep native forest biomass 'out of the mix' in relation to its renewable energy auction scheme.

The Definition of Renewable for the Purposes of Climate Change Mitigation

The focus of Renewable Energy Targets now is on the degree to which those energy sources minimise GHG emissions. This shift in the focus from conservation of scarce resources to prevention of GHG emissions has given specialised meaning to the term 'renewable'.

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[1] Estimates put burning wood waste as at least 1.5 and in some instances 6 times worse than burning coal. http://www.biofuelwatch.org.uk/resources-on-biomass/
"Dirtier than coal?" RSPB, Friends of the Earth and Greenpeace.
http://www.rspb.org.uk/Images/biomass_report_tcm9-326672.pdf

[2] from an average of 0.4 Gt CO2 yr-1 in the period 1991–2000 to an average of 1.0 Gt CO2 yr-1 for 2011–2015Ibid, http://www.fao.org/docrep/009/j9345e/j9345e07.htm

The terminology pertains not (so much) to the reproducibility of an energy form as its ability to not generate emissions. The supposed ambiguity presented by this shift in terminology is exploited by the logging industry and others promoting wood based biomass as an energy source[3]. The rationale is that because trees regrow and absorb atmospheric carbon, emissions generated when they are burnt should be ignored, written off as 'carbon neutral' and that it is this which makes native forest biomass derived energy 'renewable'. In terms of preventing climate change this is inherently flawed.

Native forest combustion based energy production processes emit significant quantities of GHG into the atmosphere. To create emissions from something that would otherwise be sequestering and storing carbon is contrary to the very concept of emission reduction. **The primary issue in preventing catastrophic climate change is to reduce emissions as fast as possible and not to emit any more.** The time taken to regrow native forests and recapture the emissions that are immediately released by native forest biomass combustion must be measured at least in decades, for the carbon dense forests of south east Australia, in centuries. That is: the time taken for full natural restoration of the original carbon store.[4]

Yet actions must be taken within the next decade to turn around the global warming trend. So, even if emissions were to be eventually recaptured as trees regrow, (dubious under current forest management rotations) it makes it irrelevant in terms to the time bound objective of tackling climate change. For detailed analysis of this we refer you to a recent Australian scientific publication, *Under What Circumstances Do Wood Products from Native Forests Benefit Climate Change Mitigation?* And specifically to the section 'Timeframes of Accounting' which includes comparisons of emission scenarios from NSW and Victorian forests[5].

It defeats the aim of a renewable energy strategy to promote, through subsidises, energy forms dependent on further destruction/degradation of native forests. Native forest biomass as an energy production source relies on a commitment to an ongoing cycle of deliberate emission production – whether or not carbon will be sequestered during the re-growing process.
Subsidising native forest biomass as a combustible power generation source is not to reduce emissions but to entrench them.

In addition the concept of the carbon neutrality of combustion processes involving native forest biomass is false because it ignores multiple factors in the carbon accounting equation. It ignores

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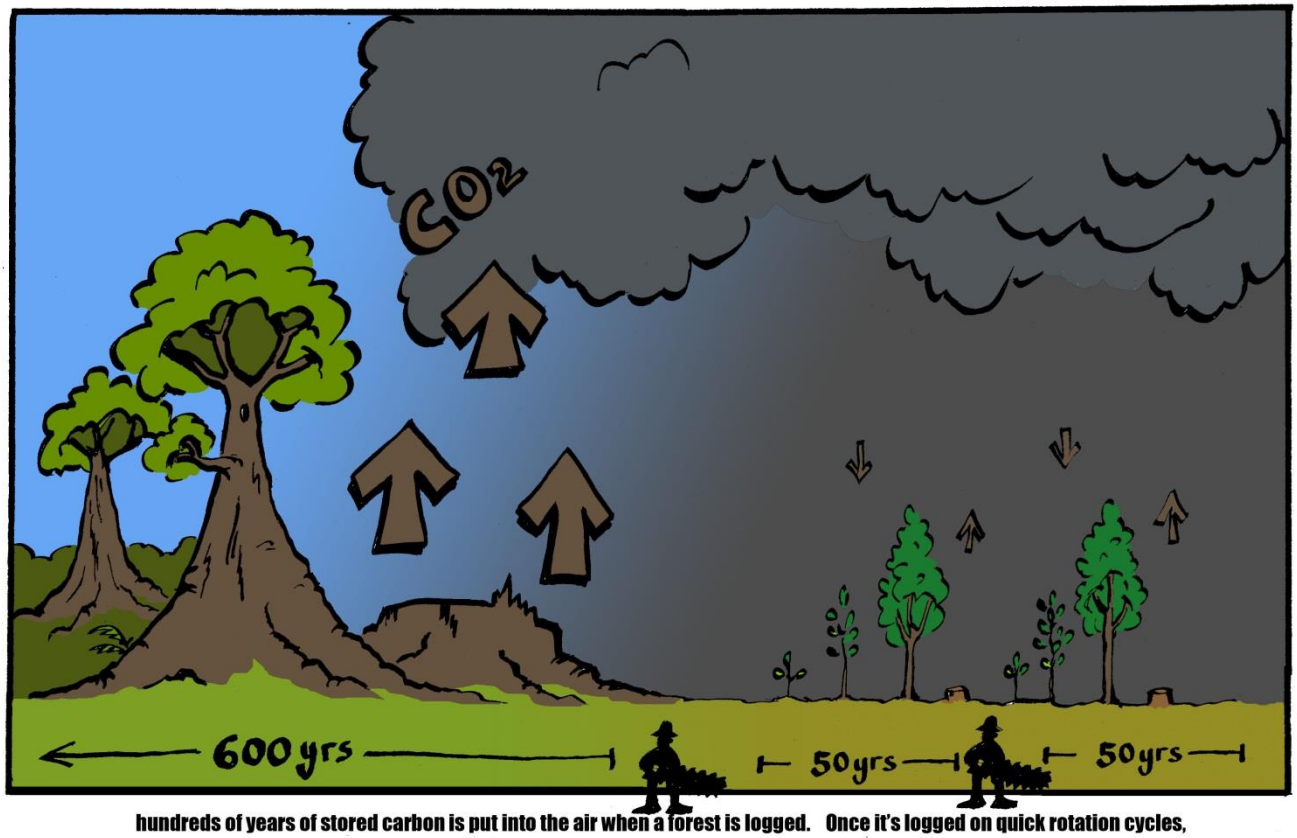
[3] Which are possibly allies in fossil fuel burning industries such as coal the interests of which can also be prolonged through subsidisation via 'co-generation' such as mixed coal and wood burning 'psuedo-renewable' energy schemes.

[4] Judith Ajani, Economist, Fenner School at Australian National University, argues the case against native forest biomass as carbon neutral in a time frame useful for mitigating climate change impact: *"If we log a 60-year-old stand of native forest for energy production today, the carbon emissions from logging will occur soon after. The forest will not regrow enough to return to today's carbon stock level until 2070. It took this long to grow: it takes this long to replace."*

[5] Citation: Keith H, Lindenmayer D, Macintosh AMackey B (2015) **Under What Circumstances Do Wood Products from Native Forests Benefit Climate Change Mitigation**? PLoS ONE 10(10): e0139640. doi:10.1371/journal.pone.0139640

the cumulative carbon losses from destruction and degradation to native forest ecosystems which necessarily ensue in 'procuring' native forest biomass in the first place.[6] It takes no account of the significant emissions from the loss of the entire forest ecosystem carbon cycle. The industry based claims whereby carbon losses from native forest stores are compared with carbon sequestration rates of regrowing trees are based primarily on estimates of tree girth and species sequestration rates and the stored wood capacity in trees. That industry models do not account for cumulative carbon loss as a factor of forest disturbance (or degradation) is attested by the fact that they typically ignore or rely on an incomplete consideration of the degree to which intact native forests sequester and store carbon not only in trees, (including exponentially greater rate of carbon absorption from older trees)[7], but in soil and root systems and through processes involving forest fauna. The peer reviewed empirical research and science on this matter is voluminous, thorough and definitive.[8]. Industry generated claims must not take the place of independent, reputable science to satisfy a powerful industry lobby group through perceived political necessity.



hundreds of years of stored carbon is put into the air when a forest is logged. Once it's logged on quick rotation cycles, the CO2 pollution never becomes reabsorbed again.

[6]Emission intensive industrialised logging is the primary process by which native forests are now logged.

[7] Native forest trees reach maturity and maximum carbon storage potential after 150-180 years of growth. Logging rotations of 5, 25, or at best 50 will not permit maximum carbon uptake from forests and will result in an ever increasing carbon debt. According to Judith Ajani, *Economist, Fenner School at Australian National University*, "Logging native forests for energy is climate negative for virtually the entire logging cycle. Furthermore, the emissions from enacting this scenario today would max out over the next ten to 20 years: a critical time in our climate challenge."

[8] Keith H, Lindenmayer D, Macintosh A, Mackey B (2015) Under What Circumstances Do Wood Products from Native Forests Benefit Climate Change Mitigation? PLoS ONE 10(10): e0139640. doi:10.1371/journal.pone.0139640

Another facet of the false accounting by which native forest biomass for energy is 'deemed' carbon neutral is in the failure to take into account heavy fossil fuel emissions incurred in accessing the resource through to the emissions generated by the transport of wood biomass to energy production facilities.[9]

Critically, the concept of native forest biomass derived energy fails to account in terms of emission prevention, 'lost opportunity cost'. Australia has the opportunity to prevent significant GHG emissions globally, not only in national terms, simply by not logging its native forests. It has some of the most carbon-dense forests in the world. When these forests are logged and burnt, that carbon is released into the atmosphere with only a small proportion of that loss recovered over several decades as trees regrow,[10] (per above illustration). Global studies, including the Stern Report by economist Nicholas Stern[11] have found that protecting native forests is the easiest, cheapest and most effective means we have for absorbing carbon dioxide (CO2) from the atmosphere. Protecting Australia's native forests will reduce emissions by tens of millions of tonnes of carbon dioxide per year[12]. The Climate Commission 2011 report 'The Critical Decade', recognises the need to protect native forests immediately as a key climate change mitigation strategy. [13] The study Under What Circumstances Do Wood Products from Native Forests Benefit Climate Change Mitigation?[14] makes a very clear and utterly compelling case for the gains to be made for conservation of native forests intact as opposed to their utilisation for energy production.

In relation to Auction Evaluation Principles as stakeholders we are asked: Are there other evaluation criteria/principles that the Government should consider to ensure the scheme meets its objectives? Our answer is yes. The Victorian Government must ensure that assessment of any proposal is based on the most rigorous peer reviewed science and not reliant on mere industry statements or claims. For this reason we again insist that the design of the Auction scheme rule out any definitions of renewables that could lead to perverse outcomes. We refer you to attached letters from Australian scientists written to federal and to state politicians of all parties over the last four

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[9] No accurate carbon accounting has taken place in relation to the use of native forest biomass as an energy source. Beyond felling and transporting are the post log burns involved in industrialised logging, and emissions in processing 'biomass' to a form suitable for furnace, or for conversion to a form suitable for transport to inter-region or interstate furnaces, or for export to overseas furnaces. Submission to the RET Review 2014 from The Australian Forests and Climate Alliance)

[10] Re-evaluation of forest biomass carbon stocks and lessons from the world's most carbon-dense forests. Heather Keith, Brendan G. Mackey and David B. Lindenmayer, Proceedings of the National Academy of Sciences of the United States of America, vol. 106 no. 28, March 2009
http://www.pnas.org/content/106/28/11635.full

[11] The Economics of Climate Change, Stern, N 2008,
http://mudancasclimaticas.cptec.inpe.br/~rmclima/pdfs/destaques/sternreview_report_complete.pdf

[12] Green Carbon Part 1' ... role of natural forests in carbon storage. Brendan Mackey, Heather Keith, Sandra L. Berry and David B. Lindenmayer. ANU Press, August 2008

[13] *The Critical Decade" Garnaut, R, 2011*

[14] Keith H, Lindenmayer D, Macintosh A, Mackey B (2015) Under What Circumstances Do Wood Products from Native Forests Benefit Climate Change Mitigation? PLoS ONE 10(10): e0139640. doi:10.1371/journal.pone.0139640

years in a desperate bid to have their recommendations heard, i.e. that native forest biomass not be considered a renewable form of energy.[15]

Lastly, we urge you take close note of the failed carbon accounting and auction/trading systems that have proved a disaster in other countries in Europe and the American continent. With clear examples of how **not** to develop and carry out carbon accounting and trading, we see that Victoria could be an example of how a RET auction should work. The Victorian system could be a flawless blueprint for other states and countries to adopt. There is no time left to continue delaying genuine carbon reduction actions.

Yours sincerely,

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Co-ordinator
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31/8/2016